Air Quality Permitting
Statement of Basis

July 10, 2006

Tier II Operating Permit
And
Permit to Construct
No. T2-050033

Woodgrain Millwork, Nampa

Facility ID No. 027-00060

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AIR QUALITY DIVISION

Public Comment

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Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	Environmental Protection Agency
HAPs	Hazardous Air Pollutants
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO_2	sulfur dioxide
T/yr	Tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01 Sections 201 and 404.04, Rules for the Control of Air Pollution in Idaho (Rules) for Tier II operating permits and Permits to Construct.

2. FACILITY DESCRIPTION

Woodgrain Millwork, Inc. (Woodgrain) produces interior and exterior panel doors at its Nampa facility.

3. FACILITY / AREA CLASSIFICATION

This facility is classified as a synthetic minor facility because operational limits limit the facility's potential to emit below major source thresholds. The AIRS facility classification is SM80 for VOCs. An SM80 facility classification means the facility's potential to emit is greater than or equal to 80% of the Tier I operating permit major source threshold. This facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The primary Standard Industrial Classification for the facility is 2431, a millwork facility.

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Canyon County which is designated unclassifiable for all criteria pollutants (PM_{10}, CO, NO_x, SO_2, lead, and ozone).

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at Woodgrain. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

This project is for the renewal of the facility's operating permit, Tier II operating permit No. T2-00052, issued June 27, 2000, removal of Permit Conditions 3 though 12, and incorporation of Permit to Construct No. P-040036, issued on April 15, 2005. The project also involves the revision of visible emission language. The old visible emission limits language has been updated, and now reference the facility wide requirement pertaining to visible emissions and that requirements standardized monitoring and recordkeeping requirements.

4.1 Application Chronology

June 27, 2005	DEQ received application.
July 26, 2005	DEQ determined application complete.
October 5, 2005	DEQ provided a draft copy to the facility and the Boise Regional Office.
October 27, 2005	DEQ received a comment from the facility requesting to remove existing permit conditions.
March 21, 2006	DEQ provided a draft copy to the Boise Regional Office.
March 30, 2006	DEQ provided a draft copy to the facility.
June 23, 2006	DEQ received approval to proceed with permit issuance.

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this Tier II operating permit.

5.1 Equipment Listing

This permitting action involves review of the equipment listed below. However, the only sources listed in the permit are the Veneer Dryer and the Water-Borne Prime Line With Aes Infrared Drying System

System 7, Cyclone #1
System 4, Cyclone #2
System 6, Cyclone #3
System 3, Cyclone #4
System 2, Cyclone #5
System 9, Cyclone #7
System 5, Baghouse #1
System 8, Baghouse #2
System 1, Baghouse #3
System 10, Baghouse #4
Various Lamination Sources
Miscellaneous Gluing Sources
Space Heaters
Boiler
Paint Drying Oven
Veneer Dryer
Water-Borne Prime Line With Aes Infrared Drying System

5.2 Emissions Inventory

An emission inventory was provided to substantiate the request for changes to the permit. Emission estimates were provided for the sources listed in Table 1.1. The source "Materials Handling" is comprised of Cyclones 1 through 5, Cyclone 7, Baghouses 1 through 4, and Chip Bin. A detailed emission inventory has been included in Appendix B.

Table 1.1 EMISSIONS INVENTORY

Source Description	PM_{10} PTE	NO_X PTE	SO_2 PTE	VOC PTE	CO PTE
	T/yr	T/yr	T/yr	T/yr	T/yr
Materials Handling	12.03				
Veneer Dryer	2.1				
Water-Borne Prime Line With Aes Infrared Drying System				77.85	
Lamination				10.01	
Misc. Sources (Gluing)				2.77	
Boiler	0.08	1.10	0.007	0.061	0.93
Space Heaters	0.075	0.99	0.006	0.054	0.83
Paint Drying Oven	0.016	0.21	0.013	0.012	0.18

5.3 Modeling

The pollutant of primary concern for this modeling analysis is PM_{10}. The modeling analysis submitted for this project demonstrated that the requested changes did not cause, or significantly contribute to, a violation of any ambient air quality standard. A summary of the modeling analysis has been included in Table 2.1.

Table 2.1 SUMMARY OF MODELING ANALYSIS RESULTS

Pollutant	Averaging Period	Total Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	Percent of NAAQS
PM_{10}	24-hour	125.7	150	83.8
	Annual	40.2	50	80.4

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this Tier II operating permit.

IDAPA 58.01.01.209.04.....Permit to Construct Required

This rule establishes the requirements for permit revisions.

IDAPA 58.01.01.400.....Procedures and Requirements for Tier II Operating Permits

IDAPA 58.01.01.401.....Tier II Operating Permit

This permit authorizes the use of a potential to emit limitation to exempt the facility from Tier I permitting requirements.

IDAPA 58.01.01.404.....Procedure For Issuing Permit

The procedures for renewal, issuance and approval apply to this permit.

5.5 Fee Review

The facility has permitted emissions less than 100 tons per year. Fees apply as per Table 5.1.

Table 5.1 Tier II Processing Fee Summary

Emissions Inventory	
Pollutant	**Permitted Emissions**
NO_X	2.3
SO_2	0.03
CO	1.94
PM_{10}	2.1
VOC	90.76
TAPS/HAPS	0.0
Total:	97.13
Fee Due	**$ 5,000.00**

5.6 Regional Review of Draft Permit

A draft was provided for the Boise Regional Office March 21, 2006. No comments were received.

5.7 Facility Review of Draft Permit

A draft was provided for the permittee on March 30, 2006. Comments were received and processed.

6. PERMIT CONDITIONS

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permit action. All other permit conditions remain unchanged.

Current Permit Sections 3 through 12 have been revised and incorporated into Permit Section 3. Permit Sections 13 and 14 have been renumbered to Permit Sections 4 and 5. The facility has submitted new emissions calculations using updated emission factors and the maximum design rate of the process equipment that produce material sent through the materials handling equipment of Permit Section 3. Additionally, the facility has submitted a modeling analysis showing that the facility would not cause, or significantly contribute to, a violation of any ambient air quality standard at these new emissions rates. Because the new emissions information was determined at the maximum design rate of the process equipment and a modeling analysis was performed showing that the facility would not cause, or significantly contribute to, a violation of any ambient air quality standard, DEQ has concurred with the facility's request to remove the sections. However, operating limits, monitoring, and recordkeeping requirements have been established to assure that the equipment is operated in the manner as described in the modeling analysis to assure compliance with ambient air quality standards.

The old visible emission limits language has been removed, and replaced by the facility wide requirement pertaining to visible emissions and that requirements standardized monitoring and recordkeeping requirements.

7. PUBLIC COMMENT

In accordance with IDAPA 58.01.01.404.04., a public comment period will be held on the proposed Tier II operating permit and PTC.

8. RECOMMENDATION

Based on the review of the application materials, and all applicable state and federal regulations, staff recommends that DEQ issue a proposed Tier II operating permit and PTC No. 050033 to the Woodgrain Millwork Nampa facility.

AC/bf Permit No. T2-050033

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Appendix A

AIRS Information

T2-050033

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Woodgrain Millwork
Facility Location: Nampa
AIRS Number: 027-00060

AIR PROGRAM / POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N – Nonattainment
SO_2	B						U
NO_X	B						U
CO	B						U
PM_{10}	B					B	U
PT (Particulate)	B						
VOC	SM					SM80	U
THAP (Total HAPs)	B						
			APPLICABLE SUBPART				

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

Appendix B

Emissions Inventory

T2-050033

Woodgrain Millwork
Nampa Facility
Facility Emission Inventory

Process Shavings Collection Equipment

PM Emissions														
Source	Cyclone Throughput (BDT)	PM Emission Factor (lb/BDT)	PM lb/hr	PM g/sec	PM Actual (tpy)	PM PTE (tpy)	PM-10 Emission Factor (lb/BDT)	PM - 10 lb/hr	PM - 10 g/sec	PM - 10 Actual (tpy)	PM-10 PTE (tpy)	Process Equip.	Location	Material Handled & Source Description
Cyclone 1 (Sys 7)	589	0.9	0.106	0.0134	0.265	0.464	0.6	0.071	0.00891	0.177	0.310	Cyclone	Bldg 1	Saw Dust Louver Door Fabrication line
Cyclone 2 (Sys 4)	605	0.9	0.109	0.0137	0.272	0.477	0.6	0.073	0.00915	0.182	0.318	Cyclone	Bldg 2	Saw Dust Specialty Door Fab, Slicer Reclaim
Cyclone 3 (Sys 6)	1024	0.9	0.184	0.0232	0.461	0.807	0.6	0.123	0.01548	0.307	0.538	Cyclone	Bldg 3	Saw Dust Louver Door Fabrication line
Cyclone 4 (Sys 3)	2555	0.9	0.460	0.0579	1.150	2.014	0.6	0.307	0.03863	0.767	1.343	Cyclone	Bldg 3	Saw Dust Colonial Door Fabrication line
Cyclone 5 (Sys 2)	2718	0.9	0.489	0.0616	1.223	2.143	0.6	0.326	0.04110	0.815	1.429	Cyclone	Bldg 3	Saw Dust Wood Chipper, Prime Line
Cyclone 7 (Sys 9)	484	0.9	0.087	0.0110	0.218	0.382	0.6	0.058	0.00732	0.145	0.254	Cyclone	Chip Bin	Chip bin clean-up cyclone
Baghouse 1 (Sys 5)	2440	0.001	0.0005	0.0001	0.001	0.002	0.001	0.0005	0.00006	0.001	0.002	Bag House	Bldg 3	Sander Dust, Vents to Plant and Atmosphere
Baghouse 2 (Sys 8)	1950	0.001	0.0004	0.0000	0.001	0.002	0.001	0.0004	0.00005	0.001	0.002	Bag House	Bldg 3	Sander Dust, Vents to Plant and Atmosphere
Baghouse 3 (Sys 1)	14899	0.001	0.0030	0.0004	0.007	0.013	0.001	0.0030	0.00038	0.007	0.013	Bag House	Chip Bin	Saw Dust, Shavings, Sander Dust
Baghouse 4 (Sys 10)	1848	0.001	0.0004	0.0000	0.001	0.002	0.001	0.0004	0.00005	0.001	0.002	Bag House	Bldg 3	Sander Dust, Vents to Plant and Atmosphere
Chip Bin	15383	1.00	3.0766	0.3877	7.692	13.476	0.58	1.7844	0.22484	4.461	7.816	Chip Bin		Loadout of Chip bin Fugitive source
			Total		*11.291*	*19.782*		*Total*		*6.864*	*12.026*			

VOC Emissions

Source	Max Rate		Actual Rate	Density	% VOC	Max Emissions		Actual Emissions
	Gal/hr	Gal/yr	Gal/yr	lb/gal		lb/hr	ton/yr	ton/yr
Lamination (glue)	23.5	205,860	117,500	9.1	1.07%	2.28	10.06	5.71
Misc. Sources (glue)	6.5	56,940	32,500	9.1	1.07%	0.63	2.77	1.58
Catalyst (glue)	1.1	9,636	5,500	9.1	1.07%	0.11	0.47	0.27
Door Prime Line	11.5	100,740	57,500	11.64	14.0%	17.37	77.35	44.44
						Total	*91.10*	*52.60*

Combustion Sources

	Ann. Thrput.	PM	PM 10	CO	NOx	SO2	VOC
	106 cu ft	t/yr	t/yr	t/yr	t/yr	t/yr	t/yr
Boiler	22.0752	0.0839	0.0839	0.9272	1.1038	0.0066	0.0607
Space Heaters (10)	19.7100	0.0749	0.0749	0.8278	0.9855	0.0059	0.0542
Paint drying oven	4.2048	0.0160	0.0160	0.1766	0.2102	0.0013	0.0116
	Totals	**0.1748**	**0.1748**	**1.9316**	**2.2995**	**0.0138**	**0.1265**

Total Facility Emissions

Pollutant	PTE (Ton/yr)	Actual (Ton/yr)
VOC	91.23	52.13
PM10	12.20	7.04
CO	1.93	1.10
NOx	2.30	1.31
SO2	0.014	0.008
Total	*107.6713*	*53.0927*